

What is claimed is:

1. A method for communicating between a telemetry unit and an implantable medical device in accordance with a telemetry protocol comprising the steps of:
 - (a) configuring a transmit driver to generate a transmit signal in accordance with the telemetry protocol;
 - (b) transmitting via telemetry the transmit signal from the transmit driver to the implantable medical device;
 - (c) configuring a receive driver to receive a receive signal in accordance with the telemetry protocol; and
 - (d) receiving via telemetry the receive signal from the implantable medical device.
2. The method for communicating of claim 1, further comprising the step of:
 - (e) measuring times between rising edges and falling edges of the receive signal.
3. The method for communicating of claim 2, further comprising the step of:
 - (f) providing the times between the rising edges and falling edges of the receive signal to a protocol driver.
4. The method for communicating of claim 1, wherein the step of configuring the transmit driver includes the steps of (i) setting at least one state in a transmit sequence; and (ii) configuring at least one transmit parameter for each state.
5. The method for communicating of claim 4, wherein the step of configuring the at least one transmit parameter includes the step of configuring the transmit parameter selected from the group consisting of a transmit frequency, a transmit amplitude, a burst shape, a data modulation scheme, and a data bit sequence.
6. The method for communicating of claim 1, wherein the transmit signal comprises at least one state and the step of transmitting includes the step of transmitting each state of the transmit signal.

7. The method for communicating of claim 1, wherein the step of configuring the receive driver includes the step of configuring at least one receive parameter.
8. The method for communicating of claim 7, wherein the step of configuring the at least one receiver parameter includes the step of configuring the receive parameter selected from the group consisting of defined pulse event attributes, defined resolution, defined pulse qualification filters, uplink sequence timeouts, and uplink termination conditions.
9. The method for communicating of claim 1, further comprising the step of:
- (e) halting the step of receiving if a memory is full.
10. The method for communicating of claim 1, further comprising the step of:
- (e) halting the step of receiving if a timeout has occurred.
11. The method for communicating of claim 1, further comprising the step of:
- (e) halting the step of receiving if a termination condition is met.
12. A method for communicating between a telemetry unit and an implantable medical device in accordance with a telemetry protocol comprising the steps of:
- (a) configuring a transmit driver to generate a transmit signal in accordance with the telemetry protocol; and
 - (b) transmitting via telemetry the transmit signal from the transmit driver to the implantable medical device.
13. The method for communicating of claim 12, wherein the step of configuring the transmit driver includes the steps of (i) setting at least one state in a transmit sequence; and (ii) configuring at least one transmit parameter for each state.
14. The method for communicating of claim 13, wherein the step of configuring the at least one transmit parameter includes the step of configuring the transmit parameter selected from the group consisting of a transmit frequency, a transmit amplitude, a burst shape, a data modulation scheme, and a data bit sequence.

15. The method for communicating of claim 12, wherein the transmit signal comprises at least one state and the step of transmitting includes the step of transmitting each state of the transmit signal.

16. A method for communicating between a telemetry unit and an implantable medical device in accordance with a telemetry protocol comprising the steps of:

- (a) configuring a receive driver to receive a receive signal in accordance with the telemetry protocol; and
- (b) receiving via telemetry the receive signal from the implantable medical device.

17. The method for communicating of claim 16, further comprising the step of:

- (e) measuring times between rising edges and falling edges of the receive signal.

18. The method for communicating of claim 17, further comprising the step of:

- (f) providing the times between the rising edges and falling edges of the receive signal to a protocol driver.

19. The method for communicating of claim 16, wherein the step of configuring the receive driver includes the step of configuring at least one receive parameter.

20. The method for communicating of claim 19, wherein the step of configuring the at least one receiver parameter includes the step of configuring the receive parameter selected from the group consisting of defined pulse event attributes, defined resolution, defined pulse qualification filters, uplink sequence timeouts, and uplink termination conditions.

21. The method for communicating of claim 16, further comprising the step of:

- (e) halting the step of receiving if a memory is full.

22. The method for communicating of claim 16, further comprising the step of:

- (e) halting the step of receiving if a timeout has occurred.

23. The method for communicating of claim 16, further comprising the step of:

- (e) halting the step of receiving if a termination condition is met.

24. A configurable telemetry unit for communicating with an implantable medical device comprising in combination:

- (a) a protocol driver capable of communicating with the implantable medical device in accordance with a telemetry protocol recognized by the implantable medical device;
- (b) a configurable transmit driver receiving a signal from the protocol driver and generating a transmit signal having parameters specified by the protocol driver; and
- (c) a configurable receive driver receiving a signal from the implantable medical device and generating a receive signal having parameters specified by the protocol driver.

25. The configurable telemetry unit of claim 24, further comprising:

- (d) an interface to link the protocol driver with a host.

26. The configurable telemetry unit of claim 25, wherein the host is a programming device.

27. The configurable telemetry unit of claim 25, wherein the host is a general-purpose computing device.

28. The configurable telemetry unit of claim 24, further comprising:

- (d) a protocol driver interface providing an interface between the protocol driver and the configurable transmit and receive drivers.

29. The configurable telemetry unit of claim 24, wherein the configurable transmit driver comprises an h-bridge and at least one timer.

30. The configurable telemetry unit of claim 24, wherein the configurable receive driver has means for measuring times between rising edges and falling edges of the signal received from the implantable medical device.

31. A configurable telemetry unit for communicating with an implantable medical device comprising in combination:

- (a) a protocol driver capable of communicating with the implantable medical device in accordance with a telemetry protocol recognized by the implantable medical device;
- (b) an antenna for transferring signals to and from the implantable medical device via telemetry;
- (c) means for receiving a signal from the protocol driver, generating a transmit signal having parameters specified by the protocol driver, and providing the transmit signal to the antenna; and
- (d) means for measuring times between rising edges and falling edges of a receive signal received from the antenna and providing the measured times to the protocol driver.

32. The configurable telemetry unit of claim 31, further comprising:

- (d) an interface to link the protocol driver with a host.

33. The configurable telemetry unit of claim 32, wherein the host is a programming device.

34. The configurable telemetry unit of claim 32, wherein the host is a general-purpose computing device.

35. The configurable telemetry unit of claim 31, further comprising:

- (d) a protocol driver interface providing an interface between the protocol driver and the means for receiving and the means for measuring.